# CHAPTER SEVEN Airport Plans



#### CHAPTER SEVEN - AIRPORT PLANS

The purpose of this chapter is to present, in graphic and narrative form, the recommended development for Cochise County Airport through the 20-year planning period. A set of detailed plans have been prepared, referred to as the **Airport Layout Plan**, which graphically outline the recommendations for airport layout and future land use on and around the airport. The complete set of plans is at the end of this chapter and includes:

- Title Sheet
- Airport Layout Plan
- Airspace Drawing
- Runway 03-21& 14-32 Runway Protection Zones
- Runway 03-21 & 14-32 Approaches
- Terminal Area Plan
- Land Use Plan
- Airport Property Map

#### **FACILITY DESIGN STANDARDS**

In the interest of safety and to provide uniformity in the design and construction of airports, the Federal Aviation Administration has developed design standards for the construction of airports within the United States. The determination of appropriate design standards for the continued development of Cochise County-Willcox Airport was based on the physical characteristics of the aircraft which are expected to use the airport.

Cochise County Airport is appropriately designated as a B-II Airport Reference Code (ARC). Identified as such, the airport should be planned and designed to accommodate business and commercial aircraft in Design Group B-II as previously identified in Chapter Three - Facility Requirements. The ALP is important as it shows graphically that adequate separations between facilities are provided.

The analysis of the future aircraft and operational fleet mix at Cochise County indicates that the major portion of the airport activity will consist of aircraft in Design Groups I & II. This includes nearly all commercial and business aircraft with approach speeds less than 79 knots, wingspans less than 118 feet. The design standards were based on the "critical" or most demanding group of aircraft expected to use the airport as identified in Chapter Three.

#### AIRPORT LAYOUT PLAN

The Airport Layout Plan (ALP) illustrates the existing and proposed ultimate development recommendations for Cochise County Airport. The improvements that are depicted are facilities that are necessary to meet the existing and future aviation demand in the area. Specific runway and airport data and characteristics are provided on the ALP to provide information and to enable interpretation of the Master Plan recommendations. The proposed layout is the result of investigations to determine the optimum plan to yield a safe and cost-effective facility. The ALP indicates that improvements are needed to both airfield and terminal facilities.

#### AIRSPACE, APPROACH AND RUNWAY PROTECTION ZONES

In the interest of safety and to provide specific areas for airspace protection, imaginary approach and airspace surfaces are situated and defined around the airport. These areas, known as FAR Part 77 Imaginary Surfaces, outline parcels in and under which the type of structure and their heights must be controlled by easements or zoning.

Sizes of the approach zones vary according to the category and the type of runway they serve. The approach zones range in length from 5,000 feet on utility runways to 50,000 feet for transport category runways with a precision instrument approach. It is within these innermost zones that development of any structure is strongly discouraged due to the dangers they pose to aircraft either approaching or departing the airport.

The airspace drawing graphically shows the Part 77 surfaces which is used to make land use recommendations for the control of the heights of objects. The drawings can be utilized by Willcox and Cochise County in determining if construction of a proposed structure near the airport would penetrate any of the reserved airspace surfaces. Non-precision instrument approaches would continue to Runway 03-21 through the planning period.

**Approaches** - Runway 03-21 consists of a large scale plan and profile view of the approach zones and runway protection zones to Runway 03-21. The plan is designed to identify existing and future roadways, utility lines, structures, and other possible obstructions which lie within these areas of aircraft approach.

The ultimate runway protection zones for Runways 03-21 are  $500' \times 1,000' \times 700'$ . The approach slope surface to Runway 03-21 is  $500' \times 5,000' \times 2,000'$  at 20:1. The approach to Runway 14-32 is  $250' \times 5,000' \times 1,250'$  at 20:1. Additional easement acquisitions are needed to provide protection for Runway 21. These areas are indicated on the Airport Layout Plan drawing.

#### TERMINAL AREA PLAN

The Terminal Area Plan represents a larger-scale detail for the construction of landside facilities to meet existing and future requirements. The plan for the terminal is to provide basic facilities including customs inspections waiting room, telephone, and restrooms. The capital development program includes terminal building remodeling with the inclusion of ADA requirements.

#### AIRPORT AND VICINITY LAND USE

Planning for optimal use of land adjacent to airports has become a vital instrument for guiding urban growth and providing a healthful and aesthetically pleasing community environment. The principal factors influencing land use in the vicinity of the airport are runway protection zone areas, airspace/obstructions to flight, factors relating to industrial development near the airport, and aircraft noise.

The current uses of the airport and vicinity land areas have been considered in the development of land use recommendations presented in this chapter and on the land use plans. Plans presented are based on the following land use concepts and criteria:

- The land use is dictated by aeronautical needs including safety requirements for both the user and general public.
- Noise impact areas that constitute a serious detriment to the quality of life (DNL 65-75) for which conditional land use should be located. Because the airport is used by propeller aircraft and has less than 10,000 operations, no 65-75 DNL areas have been identified beyond airport property.

#### Airport Land Use

The Airport Land Use Plan identifies on-airport land use recommendations for Cochise County Airport. The objective of the plan is to coordinate uses on airport property in a manner compatible with the functional design of the airport facility. On-airport land use planning is also important for the orderly development and efficient use of available space.

The Land Use Plan identifies several major airport use categories including those required for aeronautical purposes and terminal development. The major airport use categories are as follows:

#### Airport Operations Area

- Runway Safety Area
- Terminal Operations
- Taxiway Safety Area

#### Public Aviation Uses (Aviation Support)

- Terminal/FBO's
- Administrative Areas
- Transient Aircraft
- Public Parking
- Aircraft Displays

#### Private Aviation Uses (Aviation Support)

- Private Aircraft Storage (T-hangars)
- Corporate Aircraft Storage
- Air Charter Aircraft/FBO
- Airport Tower Operations
- Aircraft Displays

#### **Aviation Industry**

- Aircraft Manufacturing
- Engine Maintenance
- Aircraft Sales

#### Non-Aviation Related

- Areas Unsuitable for Aviation
  - Landfills
  - Garbage dumps
  - Sewage treatment facility
  - Towers
  - Uses that will interfere with aircraft movement

#### Airport Vicinity Land Use

Because the airport facility is utilized by nearly all types of aircraft, it is necessary to determine the noise effects experienced by the area surrounding the airport.

The study of current conditions indicated that present aircraft noise is relatively minor and that no areas are currently subjected to noise levels in excess of 65 DNL.

Incompatible land uses in the vicinity of the Cochise County airport include landfills, garbage dumps, sewage treatment facilities, and other uses which may attract bird habitats. Other uses that could involve electronic tranmissions, reflective surfaces, bright lighting, and towers should be reviewed in any future land use development near the airport.

#### Area Airspace

The purpose of Airport Zoning is to prevent the creation or establishment of structures or objects of natural growth which would constitute hazards or obstructions to aircraft operating to, from and in the vicinity of an airport. The definition of zones and the allowable height of structures in relation to the airport are specified in Part 77 of the Federal Aviation Regulations, "Objects Affecting Navigable Airspace," and are shown on the Airspace Drawing (Drawing No. 3). Although the FAA has no direct authority to enforce the regulations on a local government, it may rule that use of a runway shall be curtailed if structures near the airport present a hazard and are in violation of Part 77. Airport zoning ordinances are enacted by local government in the same way as (or as part of) the local zoning ordinance. Cochise County should enact height and hazard ordinances.

#### AIRPORT PROPERTY MAP

The outright acquisition of property by the airport sponsor to ensure compatibility of land adjacent to the airport affords the maximum flexibility in developing land and protects the airport against encroachment. **The Airport Property Map** was prepared to indicate the various tracts of airport property, including when and how they were acquired and easements. Proposed property limits are also indicated. Only a small parcel in Runway 21 RPZ (3 acres) is proposed for purchase.

#### **COCHISE COUNTY AIRPORT**

Airport Master Plan

Airport Layout Plan

BWR 7 - 6

# AIRPORT LAYOUT PLANS

## FOR THE

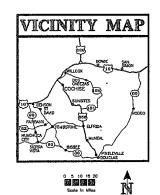
# COCHISE COUNTY AIRPORT

### WILLCOX, ARIZONA



#### INDEX OF DRAWINGS

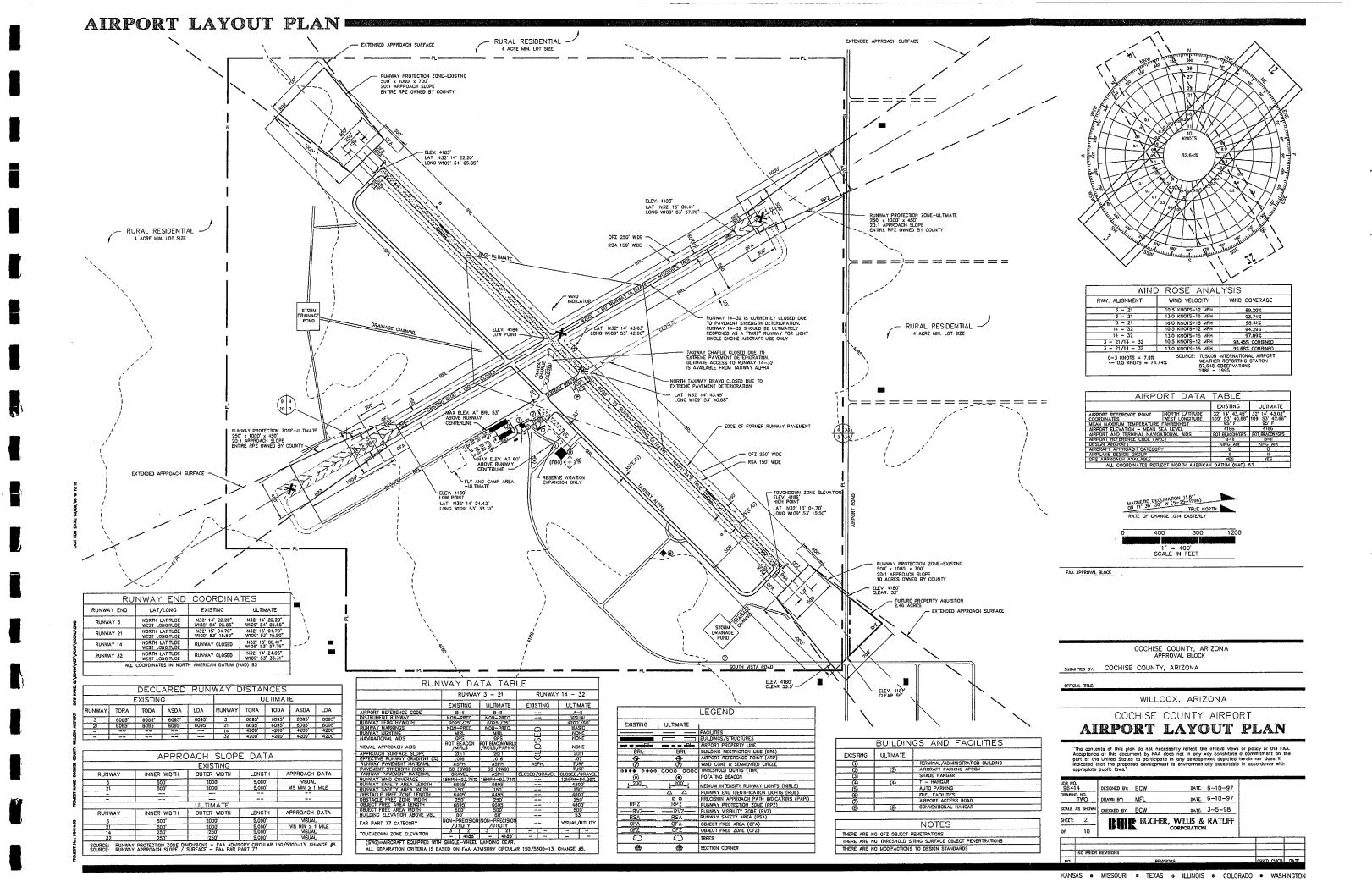
- 1. TITLE SHEET
- 2. AIRPORT LAYOUT PLAN
- 3. AIRSPACE DRAWING
- 4. RUNWAY 3-21 APPROACHES
- 5. RUNWAY 14-32 APPROACHES
- 6. CENTERLINE PROFILE
- 7. TERMINAL AREA PLAN
- 8. AERIAL PHOTO
- 9. LAND USE PLAN
- 10. PROPERTY MAP

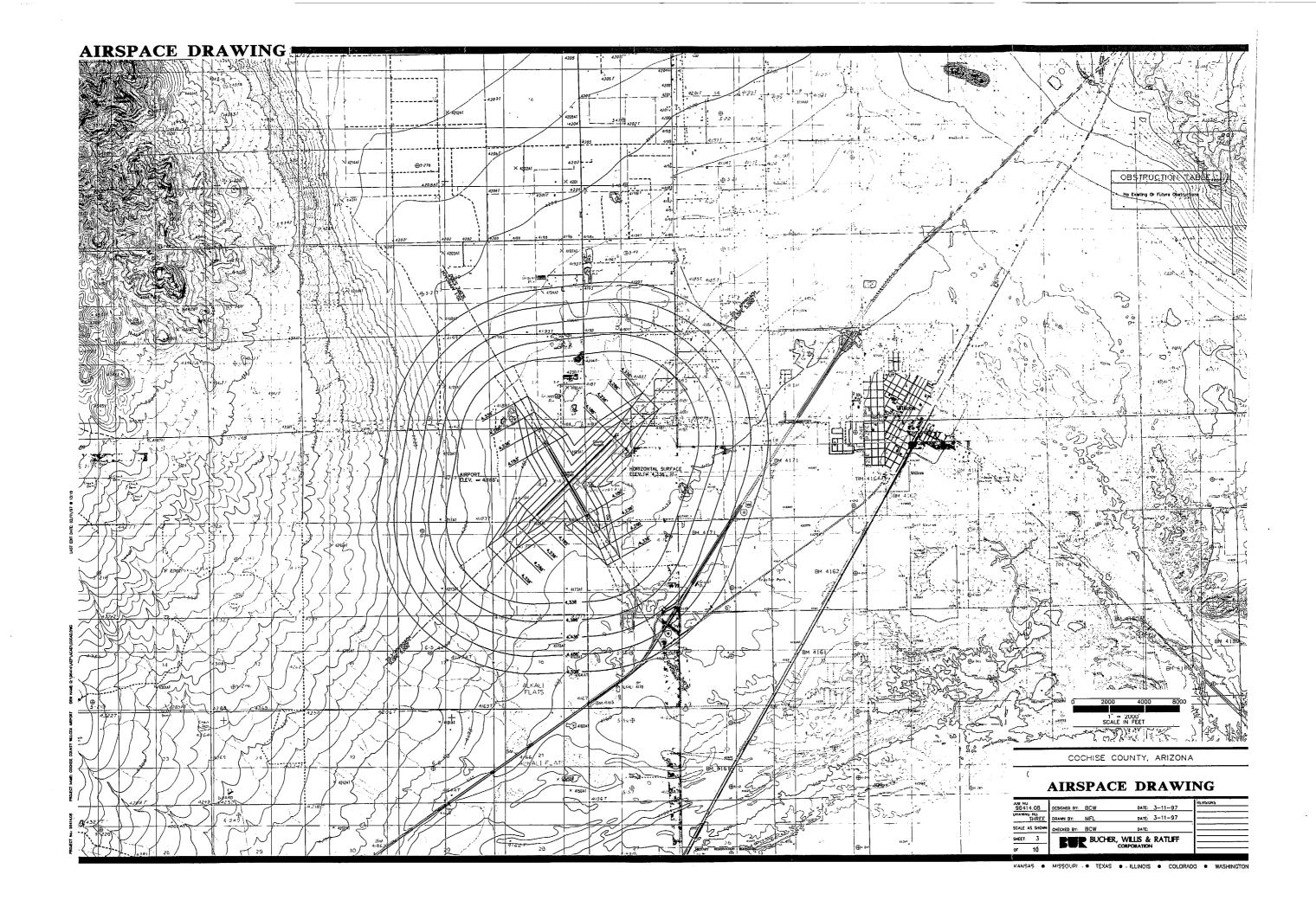


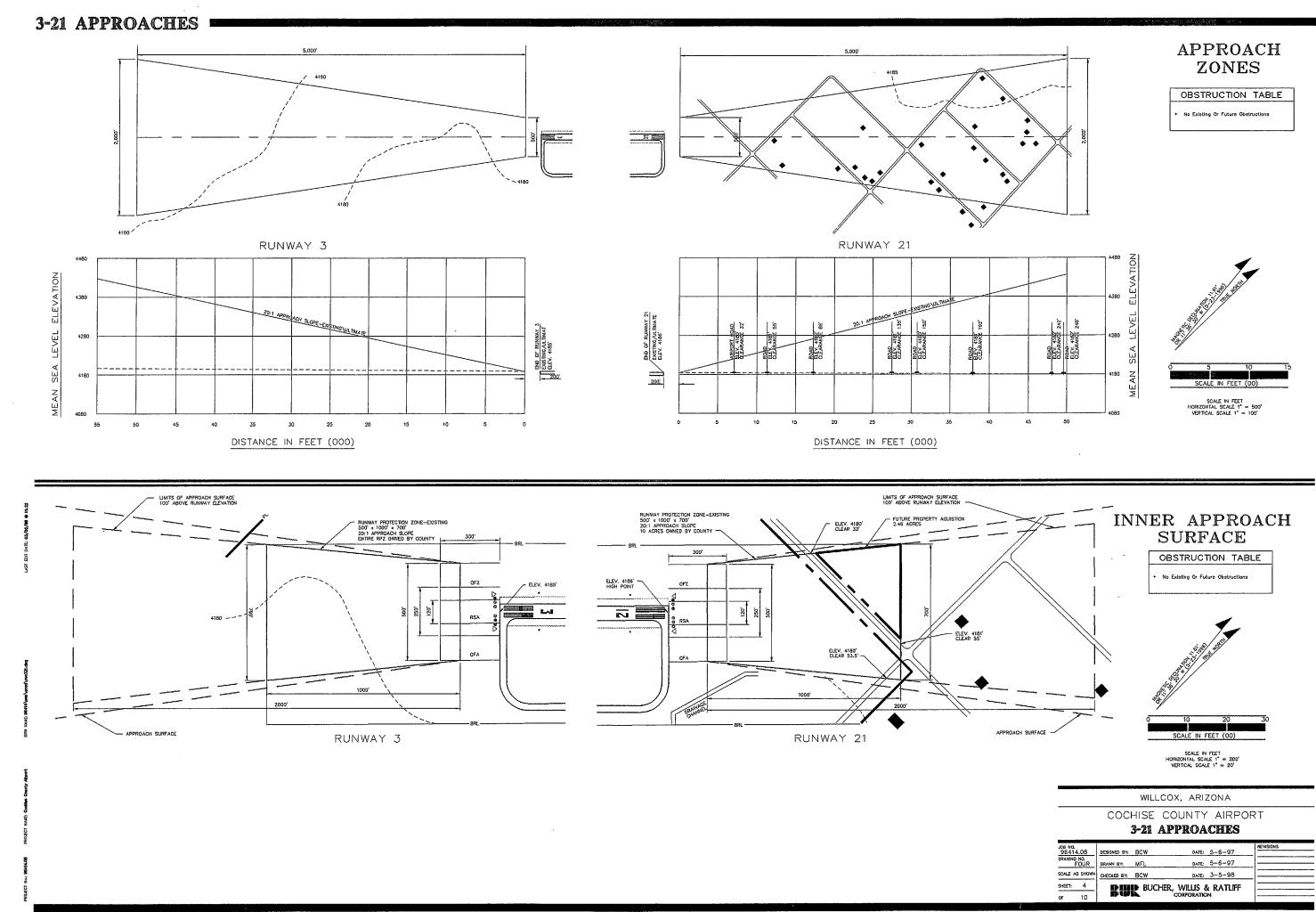
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COCHISE COUNTY AIRPORT

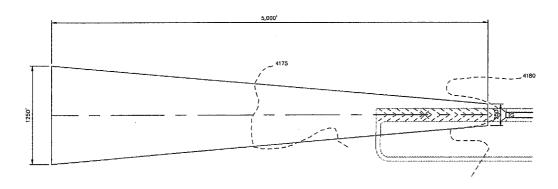
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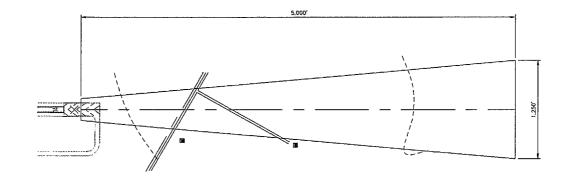






#### 14-32 APPROACHES

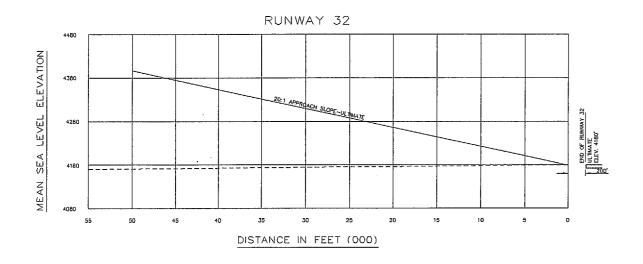


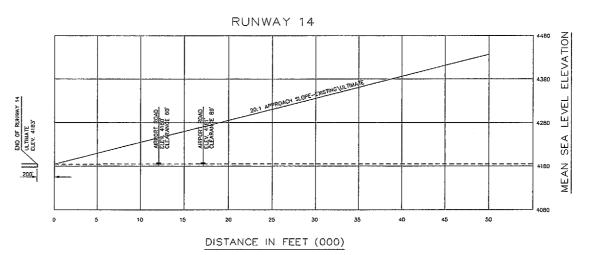


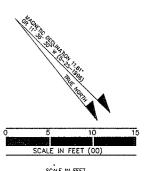
# APPROACH ZONES

OBSTRUCTION TABLE

No Existing Or Future Obstructions







SCALE IN FEET
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VERTICAL SCALE 1" = 100'

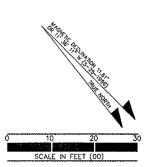
# RUNWAY PROTECTION ZONE-ULTIMATE 250" x 1000" x 450" 20:1 APPROACH SLOPE ENTIRE RPZ OWNED BY COUNTY

RUNWAY 32

RUNWAY 14

#### INNER APPROACH SURFACE

OBSTRUCTION TABLE



SCALE IN FEET
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 20'

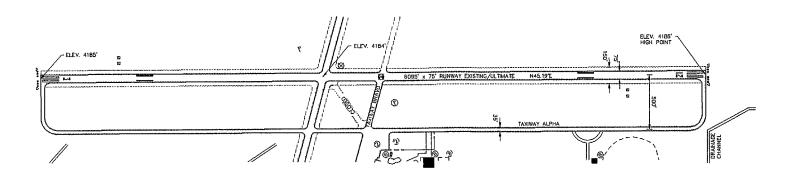
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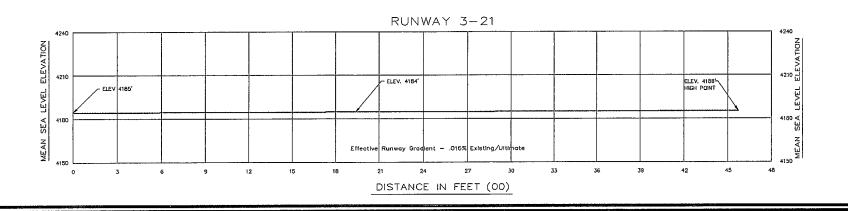
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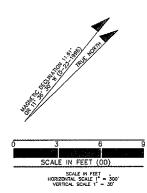
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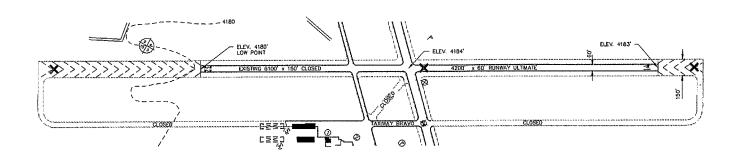
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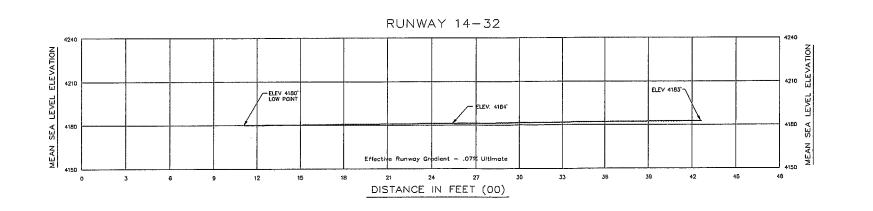
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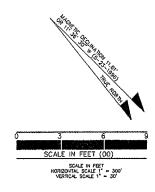








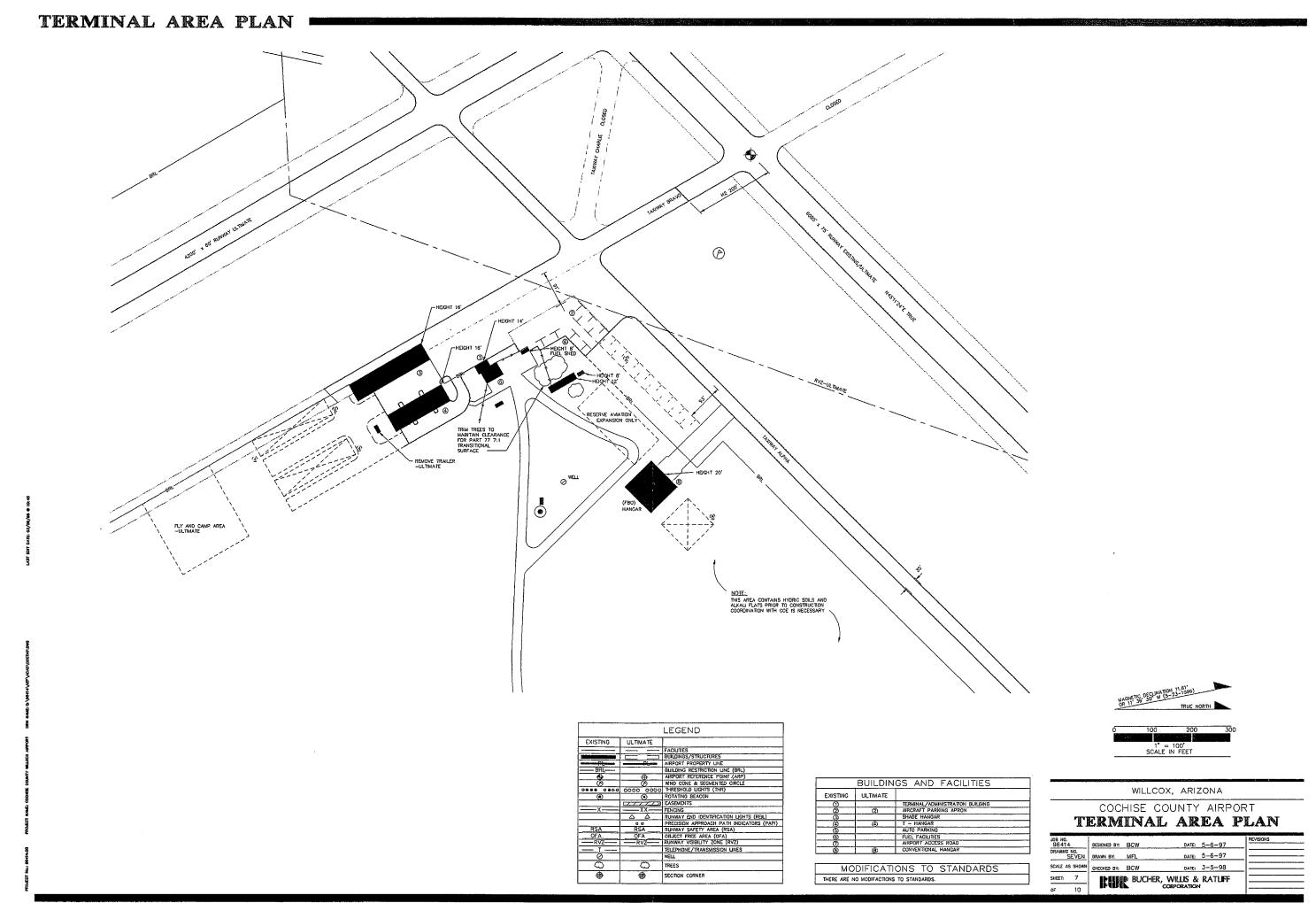


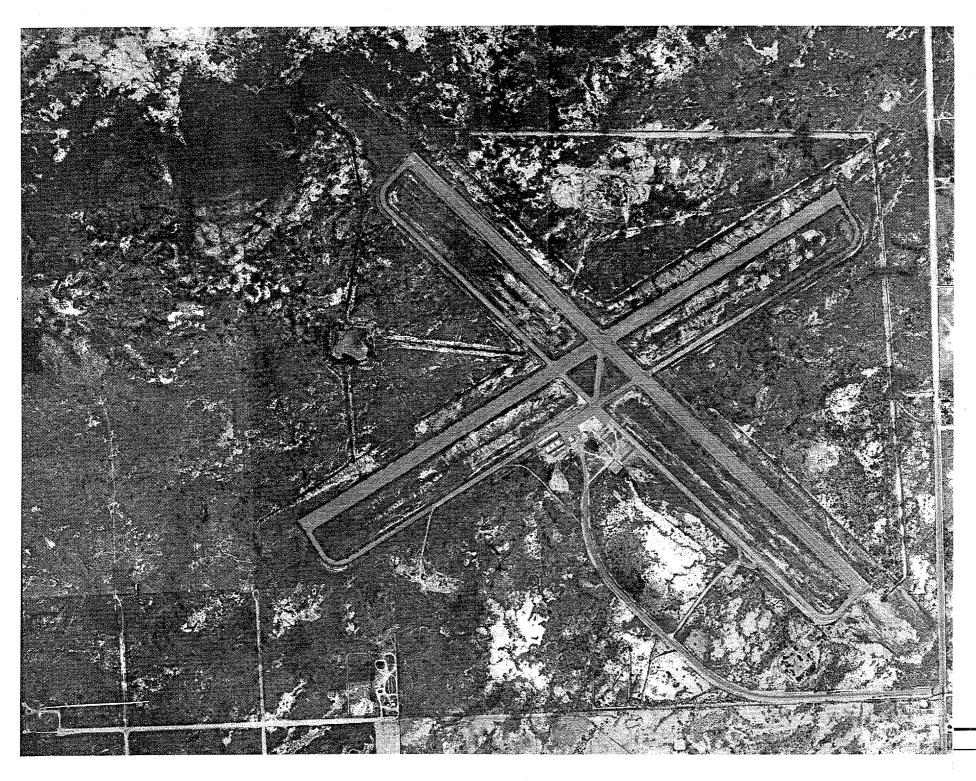


WILLCOX, ARIZONA

COCHISE COUNTY AIRPORT
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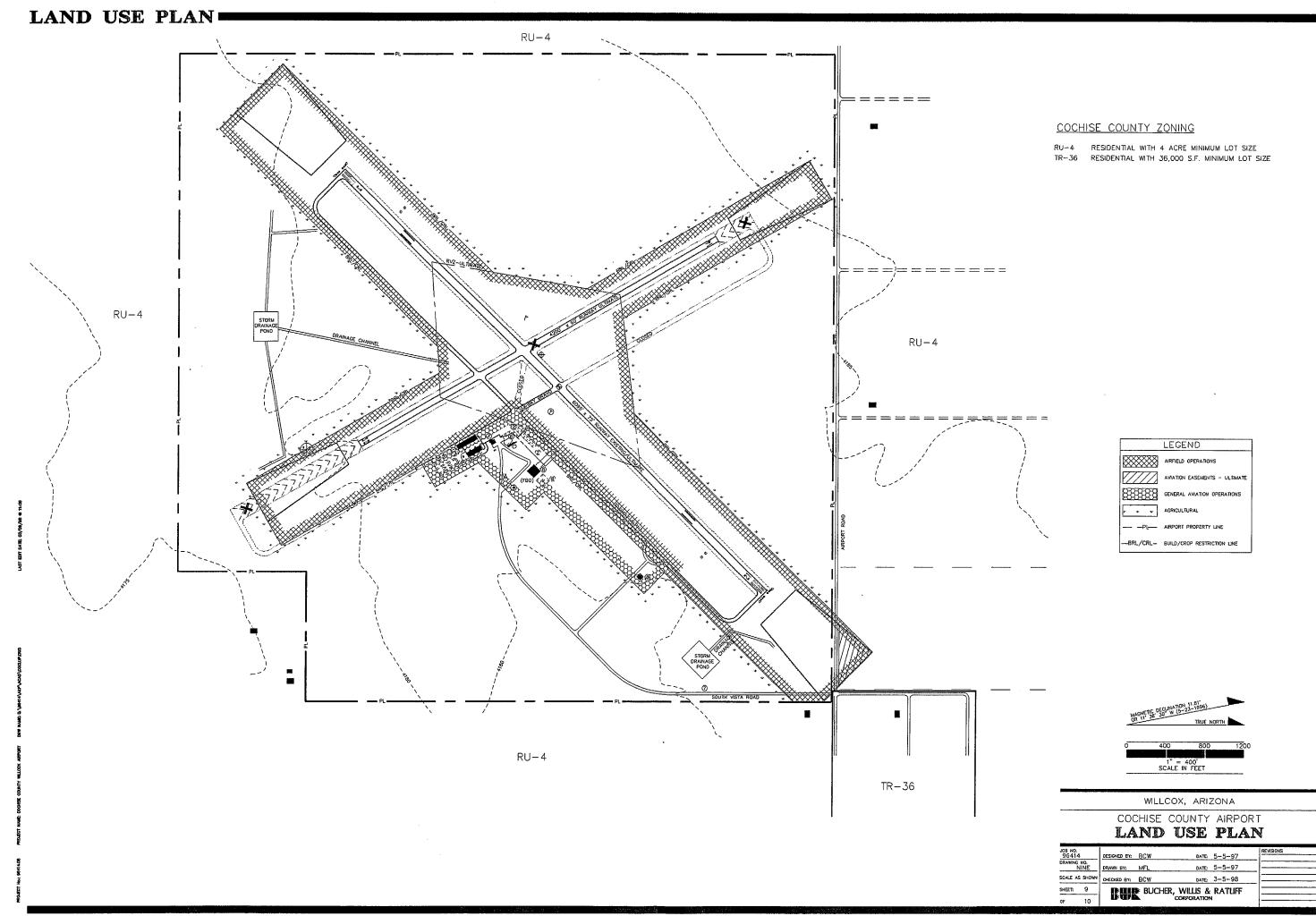
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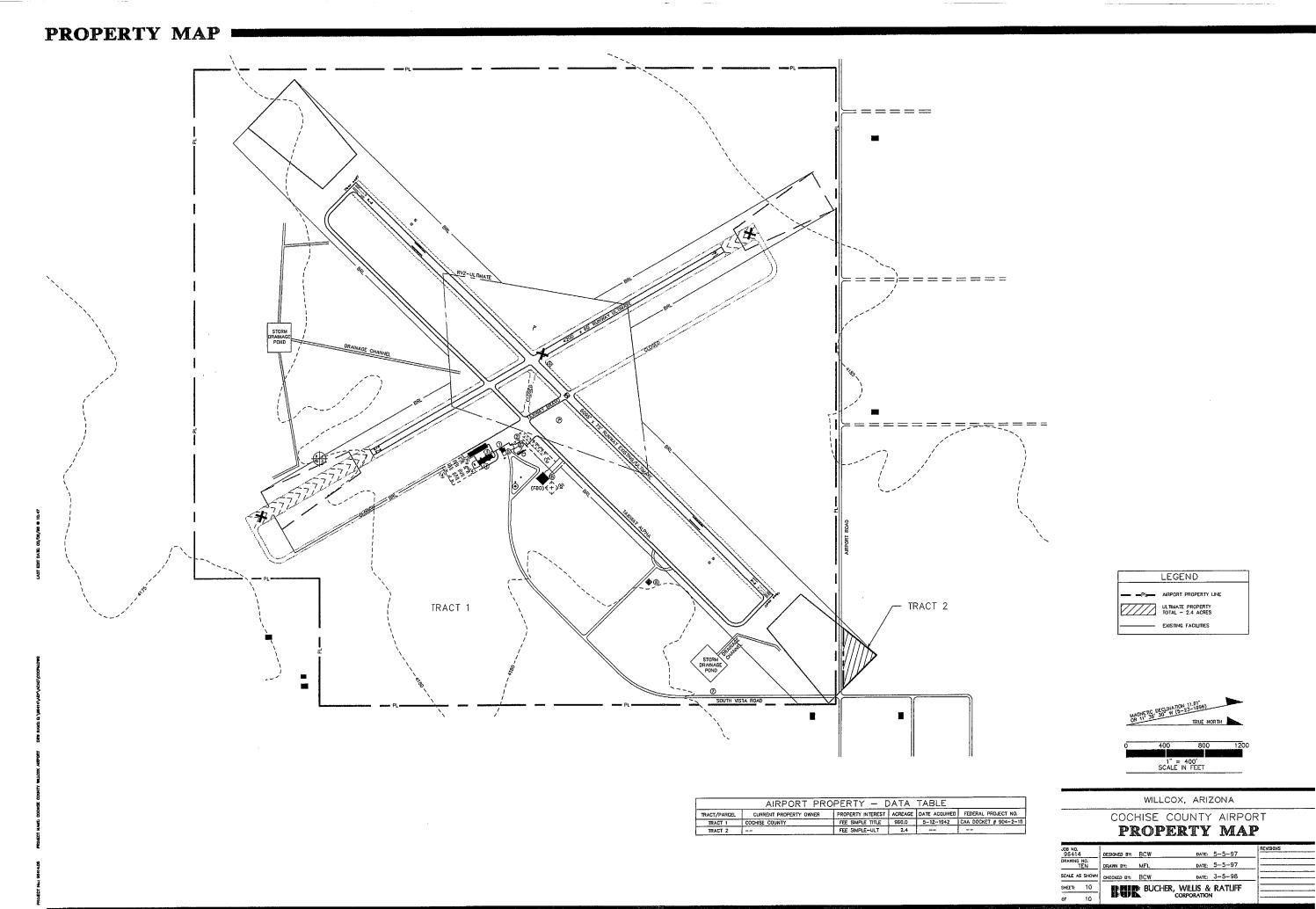
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COCHISE COUNTY, ARIZONA

#### **AERIAL PHOTO**

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